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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/945,515	08/30/2001	Burton Wright	303.745US1	2657
21186	7590	07/29/2004	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			KASSA, YOSEF	
		ART UNIT	PAPER NUMBER	
		2625		
DATE MAILED: 07/29/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/945,515	WRIGHT, BURTON	
	<b>Examiner</b>	<b>Art Unit</b>	
	YOSEF KASSA	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 30 August 2001.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-55 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 49 is/are allowed.  
 6) Claim(s) 1,2,4,5,7-15,17-20,22-25,27-40,42,44,45,48-51 and 53-55 is/are rejected.  
 7) Claim(s) 3,6,16,21,26,41,43,46,47 and 52 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 30 August 2001 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date 3.

4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

**DETAILED ACTION*****Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 5, 7-9, 12-15, 17-20, 22-25, 27-34, 36-39, 42, 44, 45, 48 and 53-55 rejected under 35 U.S.C. 102(e) as being anticipated by Sakamoto (U.S. Patent 6,157,414).

With regard to claim 1, Kesatoshi discloses an interpolation filter (see Fig. 4, item 6, perform filter the enlarged/reduced image), wherein the interpolation filter is to upscale the source image to an intermediate image (see col. 2, lines 31-46), wherein the intermediate image has a size equal to a size of the destination image adjusted by a scale factor (see col. 2, lines 16-30); and a first average filter to downscale the intermediate image to the destination image (see col. 4, lines 51-62).

With regard to claim 2, Kesatoshi discloses the first average filter further is to average horizontally the intermediate image on a two-by-two pixel basis (see

Fig. 7 and col. 2, lines 47-51).

Claim 4 is similarly analyzed as claim 2.

Claim 5 is similarly analyzed as claim 1.

With regard to claim 7, Kesatoshi discloses the scale factor is based on the destination height (see col. 2, lines 47-51).

Claims 8 and 9 are similarly analyzed as claim 7.

Claims 12, 19, 34, 37 and 55 are similarly analyzed as claim 2.

Claims 13 and 14 are similarly analyzed as claim 7.

Claim 15 is similarly analyzed as claims 1 and 11.

Claims 17, 18 and 19 are similarly analyzed as claim 2.

Claim 20 is similarly analyzed as claim 1.

Claims 22, 23 and 24 are similarly analyzed as claim 7.

Claim 25 is similarly analyzed as claim 1.

Claims 27, 28 and 29 are similarly analyzed as claim 7.

Claim 30 is similarly analyzed as claim 1.

Claims 31, 32 and 33 are similarly analyzed as claim 7.

Claim 34 is similarly analyzed as claim 2.

Claims 36, 38 and 39 are similarly analyzed as claim 7.

Claim 37 is similarly analyzed as claim 2.

Claims 42 and 44 are similarly analyzed as claim 2-4.

Claim 45 is similarly analyzed as claim 1.

Claim 48 is similarly analyzed as claim 7.

Claim 53 is similarly analyzed as claim 7.

Claim 54 is similarly analyzed as claim 7.

Claim 55 is similarly analyzed as claim 2.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 10, 11, 35, 40, 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamoto (U.S. Patent 6,157,414), and further in view of Tse et al (U.S. Patent 5,473,342).

Claim 10 is similarly analyzed as claim 1. Except the additional limitation of a graphics card is not taught by Sakamono. In the same field of endeavor, However, Tse et al (see Fig. 1, item 30) teaches this feature. At the time of the invention was made, It would have been obvious to incorporate the teaching of Tse et al resolution of display image processing system into Salamoto's system. The motivation for doing so is to provide adjusting the output pixel rate to match the pixel by pixel base.

With regard to claim 11, Kesatoshi discloses a buffer comprising storage with a size of half of the destination image size plus half of a length of a preceding line in the intermediate image (see col. 2, lines 35-42); and a vertical

average filter communicatively coupled to the line buffer, wherein the vertical average filter is to average vertically the intermediate image on a two-by-two pixel basis (see Fig. 7).

With regard to claim 35, Salamoto discloses perform bilinear interpolation on a plurality of samples from a source bitmap to produce an intermediate bitmap (see col. 5, lines 36-43), and downscale the intermediate bitmap to produce a destination bitmap by averaging every two adjacent values in a row of the intermediate bitmap (see Fig. 7 and col. 2, lines 47-51).

Salamoto did not explicitly call for a graphics card. In the same field of endeavor, However, Tse et al (see Fig. 1, item 30) teaches this feature. At the time of the invention was made, It would have been obvious to incorporate the teaching of Tse et al resolution of display image processing system into Salamoto's system. The motivation for doing so is to provide adjusting the output pixel rate to match the pixel by pixel base.

Claim 40 is similarly analyzed as claim 2. Except the additional limitation of shifter logic to shift color components of the intermediate bitmap, and adder logic to add the color components of the intermediate bitmap is not taught by Sakamoto. However, Tse et al (see col. 7, lines 1-20) teaches this feature. At the time of the invention was made, It would have been obvious to incorporate the teaching of Tse et al resolution of display image processing system into Salamoto's system. The motivation for doing so is to provide adjusting the output pixel rate to match the pixel by pixel base.

Claim 50 is similarly analyzed as claim 40.

Claim 51 is similarly analyzed as claims 1 and 10.

### **Allowable Subject Matter**

3. Claim 49 is allowed.

The following is an examiner's statement of reasons for allowance. The closest prior art of record failed to teach or suggest, a plurality of cascaded horizontal average filters to average horizontally the intermediate image on a two-by-two pixel basis, a line buffer to store output from the plurality of cascaded horizontal average filters, a plurality of cascaded vertical average filters to average vertically the intermediate image on a two-by-two pixel basis, and a selector to deliver an output of the plurality of cascaded horizontal average filters to both the line buffer and the plurality of cascaded vertical average filters.

Therefore, in combination with all other limitations claim 49 are allowable.

4. Claims 3, 6, 16, 21, 26, 41, 43, 46, 47 and 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### **Other Prior Art Cited**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. (5,874,937) to Kesatoshi discloses method and apparatus for scaling up and down a video image.

US Patent No. (5,517,612) to Dwin et al discloses device for scaling read time image...

US Patent No. (6,256,045) to Avery et al discloses device and method for processing picture in MPEG decoder.

US Patent No. (6,151,074) to Werner discloses integrated MPEG decoder and image resizer for...

US Patent No. (5,592,194) to Price-Francis discloses display controller.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOSEF KASSA whose telephone number is (703) 306-5918. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BHAVESH MEHTA can be reached on (703) 308-5246. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communication and (703) 872-9306 for after Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone

number is (703) 306-5631. The group receptionist number for TC 2600 is (703) 305-4700.



**PATENT EXAMINER**

Yosef Kassa

07/23/04.

BHAVESH M. MEHTA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600